

WHAT IS CLAIMED IS:

1. A method for attaching a guide rail to a substrate with a floating mount comprising the steps of:

- 5           a) providing a guide rail having a rail base;
- b) providing at least one fixing device having at least one flexible element and a stop;
- c) attaching the rail base to a substrate with the at least one fixing device whereby when the guide rail section is temporarily subjected to a
- 10           deforming force moving the guide rail relative to the substrate in a deforming direction, the at least one flexible element is deformed; and
- d) when the deforming force exceeds a predetermined limit, limiting further movement of the guide rail in the deforming direction with the stop.

15           2. The method according to claim 1 wherein the deforming movement is along a height axis perpendicular to a longitudinal axis of the guide rail and to the rail base.

             3. The method according to claim 1 wherein the deforming movement is along a lateral axis perpendicular to a longitudinal axis of the guide rail and parallel to the rail

20   base.

             4. The method according to claim 1 wherein the deforming movement is along at least one of a height axis perpendicular to a longitudinal axis of the guide rail and to the rail base and a lateral axis perpendicular to a longitudinal axis of the guide rail and

25   parallel to the rail base.

             5. The method according to claim 1 including a step of forming the flexible element with a base support retaining at least one flexible strip unit.

30           6. The method according to claim 5 wherein said step c) is performed by installing the base support between the guide rail and the substrate.

7. The method according to claim 6 including forming the base support with a crescent shaped top strip unit having an apex line and positioning the rail base on the apex line.

5 8. The method according to claim 1 including a step of forming the flexible element with a side support retaining at least one flexible sleeve element.

9. The method according to claim 8 wherein said step c) includes installing the flexible sleeve element in a pretensioned condition.

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10. The method according to claim 8 wherein said step c) is performed by installing one of the side supports on each of opposite sides of the rail base.

11. The method according to claim 1 including a step of forming the flexible  
15 element with a backside support retaining at least one flexible disc element and at least one claw.

12. The method according to claim 11 wherein said step c) includes installing the flexible disc element in a pretensioned condition.

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13. The method according to claim 11 wherein said step c) is performed by installing one of the backside supports and one of the claws on each of opposite sides of the rail base.

14. A device for attaching a guide rail to a substrate comprising:

support means adapted to attach the guide rail to a substrate;

a moveable part attached to said support means;

a flexible element floatingly supporting said moveable part; and

5 a stop adjacent said moveable part whereby when the guide rail is attached to the  
substrate by said support means and a deforming force is applied to the  
guide rail moving the guide rail and said moveable part in a deforming  
direction, said flexible element deforms until the deforming force exceeds  
a predetermined limit whereupon said stop engages said moveable part  
10 and prevents further movement of the guide rail in the deforming  
direction.

15. The device according to claim 14 wherein said moveable part is a top strip  
unit adapted to engage the guide rail and said flexible element includes at least one  
15 flexible strip unit retained between said top strip unit and said stop, and wherein the  
deforming direction is along a height axis of the guide rail.

16. The device according to claim 15 wherein said top strip unit is crescent  
shaped in profile with an apex line upon which a rail base of the guide rail is positioned.  
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17. The device according to claim 14 wherein said moveable part is an outer  
sleeve adapted to engage the guide rail, said stop is a face of an inner sleeve positioned  
inside said outer sleeve, and said flexible element includes at least one flexible sleeve  
element positioned between said outer sleeve and said inner sleeve, and wherein the  
25 deforming direction is along a lateral axis of the guide rail.

18. The device according to claim 17 wherein said flexible sleeve element is  
pretensioned.

19. The device according to claim 14 wherein said moveable part is bottom disc, said stop is a top disc and said flexible element is a flexible disc positioned between said bottom disc and said top disc, and wherein the deforming direction is along a height axis of the guide rail.

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20. The device according to claim 19 wherein said flexible disc is pretensioned.

21. The device according to claim 14 wherein said flexible element compensates for any radial offset and angular offset between the guide rail and said support means.

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22. The device according to claim 14 wherein said flexible element is formed of one of a flexible plastic material, a flexible rubber material and a flexible metal material.

23. The device according to claim 14 wherein said support means includes at least one pin extending through apertures formed in a rail base of the guide rail and the substrate and at least one fastener co-operating with said pin to attach the guide rail to the substrate.

24. A fixing device for attaching a guide rail to a substrate comprising:  
support means adapted to attach the guide rail to a substrate;  
a first moveable part attached to said support means;  
a first flexible element floatingly supporting said first moveable part;  
a first stop adjacent said first moveable part whereby when the guide rail is attached to the substrate by said support means and a deforming force is applied to the guide rail moving the guide rail and said moveable part along a height axis, said first flexible element deforms until the deforming force exceeds a first predetermined limit whereupon said first stop engages said first moveable part and prevents further movement of the guide rail along the height axis;  
a second moveable part attached to said support means;  
a second flexible element floatingly supporting said second moveable part; and

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5 a second stop adjacent said second moveable part whereby when the deforming force is applied to the guide rail moving the guide rail and said second moveable part along a lateral axis, said second flexible element deforms until the deforming force exceeds a second predetermined limit whereupon said second stop engages said second moveable part and prevents further movement of the guide rail along the lateral axis.